In the Claims

Please cancel claims 19-33, 38-41, and 55.

Amend the claims as follows:

3. (amended) The device [in accordance with claim 1 or 2] of claim 2, wherein said hydrogenotrophic bacteria comprise one or more strains of bacteria selected from the group consisting of *Acetobacterium woodi, Aeromonas hydrophila, Aeromonas sobria, Alcaligenes eutrophus, Comamonas acidovorans, Dehalococcoide restrictus, Dehalococcoide multivorans, Dehalococcoide ethenogene, Desulfobacterium tiedje, Enterobacter agglomerans, Hydrogenobacter thermophilus, Methanosarcina barkeri, Methanosarcina mazei, [Mehtanosarcina] Methanosarcina thermophila, Paracoccus denitrificans, Pseudomonas aureofaciens, Pseudomonas maltophilia, Pseudomonas mendocina,* and *Shewanella putrefaciens*.

4. (amended) The device [in accordance with any preceding claim] of claim 3, wherein said hydrogenotrophic bacteria comprise *Paracoccus denitrificans* ATCC17741, *Paracoccus denitrificans* ATCC35512, *Paracoccus denitrificans* ATCC13543, or *Paracoccus denitrificans* ATCC19367.

5. (amended) The device [in accordance with any preceding claim] of claim 1, wherein said zero-valent iron comprises Fe(0) metal, an Fe(0) alloy, or an Fe(0)-Ni(0), Fe(0)-Zn(0), Fe(0)-Pt(0), or Fe(0)-Pd(0) bimetal.

6. (amended) The device [in accordance with any preceding claim] of claim 5, wherein said zero-valent iron comprises filings, shavings, turnings, wool, powder, mesh, beads, rods, pellets, or flakes.

7. (amended) The device [in accordance with any preceding claim] of claim 1, further comprising a support.

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8. (amended) The device [in accordance with any preceding claim] of claim 7, further comprising a glass, concrete, metallic, zeolite, mineral, fiber, fiberglass, ceramic, plastic, polymeric, or resin support.

9. (amended) The device [in accordance with any preceding claim] of claim 1, comprised within an environmental site.

10. (amended) The device [in accordance with any preceding claim] of claim 9, comprised within a landfill site, an agricultural site, an agricultural runoff site, or an irrigation site.

11. (amended) The device [in accordance with any preceding claim] of claim 1, further defined as an *in situ* reactive barrier.

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13. (amended) The device [in accordance with any one of claims 1 to 8] of claim 1, further defined as an *ex situ* bioreactor.

15. (amended) The device [in accordance with claim 13 or 14] of claim 14, further defined as a continuous culture system, a flow-through packed column, an inline water filter, a biofermenter, a fluidized bed, a sequencing batch reactor, or an anaerobic digester.

16. (amended) The device [in accordance with any one of claims 13 to 15] of claim 15, comprised within a water-, wastewater- or sewage-treatment system.

18. (amended) The device [in accordance with any preceding claim] of claim 1, comprised within a system for remediating pollution in an aqueous solution or an environmental site.

34. (amended) A method of removing or reducing the concentration of an organic or inorganic compound in an environmental site, comprising providing to said site an effective amount of a composition comprising zero-valent iron and a culture of one or more hydrogenotrophic bacteria, or contacting said site with a device [in accordance with any one of claims 1 to 18] comprising a composition comprising zero-valent iron and a culture of one or more hydrogenotrophic bacteria.

35. (amended) A method for denitrifying groundwater or an environmental site *in situ* comprising contacting said groundwater or said environmental site with a composition comprising zero-valent iron and a culture of one or more hydrogenotrophic bacteria, or contacting said site with a device [in accordance with any one of claims 1 to 18] comprising a composition comprising zero-valent iron and a culture of one or more hydrogenotrophic bacteria.

36. (amended) A method for removing or reducing the concentration of a [nitrogen- or] sulfur-containing compound in a sample, comprising contacting a sample suspected of containing said compound with a composition comprising zero-valent iron and a culture of one or more hydrogenotrophic bacteria, or contacting said site with a device [in accordance with any one of claims 1 to 18] comprising a composition comprising zero-valent iron and a culture of one or more hydrogenotrophic bacteria.

37. (amended) The method in accordance with claim 36, wherein said [nitrogen-containing compound is nitrate or nitrite, and said] sulfur-containing compound is sulfate or sulfite.

42. (amended) A method for removing or reducing the concentration of a halocarbon compound in a sample, comprising contacting a sample suspected of containing said halocarbon with a composition comprising zero-valent iron and a culture of one or more hydrogenotrophic bacteria, or contacting said site with a device [in accordance with any one of claims 1 to 18] comprising a composition comprising zero-valent iron and a culture of one or more hydrogenotrophic bacteria.

44. (amended) The method [in accordance with claim 42 or 43] of claim 43, wherein said halocarbon is carbon tetrachloride, dichloromethane, trichloroethylene, perchloroethylene, dichloroethylene, vinyl chloride, chloroethane, dichlordifluoromethane, trihalomethanes, tetrachlordibenzodioxin pentachlorophenol, a chlorobenzoate, atrazine, or 1,1,1-TCA.

45. (amended) The method [in accordance with any one of claims 42 to 44] of claim 44, wherein said halocarbon is carbon tetrachloride, trichloroethylene, or dichloromethane.

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46. (amended) A method for removing or reducing the concentration of a haloaromatic compound in a sample, comprising contacting a sample suspected of containing said haloaromatic compound with a composition comprising zero-valent iron and a culture of one or more hydrogenotrophic bacteria, or contacting said sample with a device [in accordance with any one of claims 1 to 18] comprising a composition comprising zero-valent iron and a culture of one or more hydrogenotrophic bacteria.

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48. (amended) A method for degrading or detoxifying a pesticide, comprising contacting a sample suspected of containing said pesticide with a composition comprising zero-valent iron and a culture of one or more hydrogenotrophic bacteria, or contacting said sample with a device [in accordance with any one of claims 1 to 18] comprising a composition comprising zero-valent iron and a culture of one or more hydrogenotrophic bacteria.

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50. (amended) The method [in accordance with claim 48 or 49] of claim 49, wherein said pesticide is atrazine.

51. (amended) A method for detoxifying a metal ion-containing compound, comprising contacting a sample suspected of containing said comound with a composition comprising zero-valent iron and a culture of one or more hydrogenotrophic bacteria, or contacting said sample

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with a device [in accordance with any one of claims 1 to 18] comprising a composition comprising zero-valent iron and a culture of one or more hydrogenotrophic bacteria.

53. (amended) The method [in accordance with claim 51 or 52] of claim 52, wherein said compound comprises chromium (VI) or uranium (VI).

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54. (amended) A method for reducing the concentration of [nitrite-, nitrate-,] sulfite-, or sulfate-containing compound in an aqueous solution or environmental site, comprising (a) selecting an aqueous solution or an environmental site containing said compound; and (b) contacting said solution or site with a composition comprising zero-valent iron and a culture of one or more hydrogenotrophic bacteria, or contacting said solution or site with a device [in accordance with any one of claims 1 to 18] comprising a composition comprising zero-valent iron and a culture of one or more hydrogenotrophic bacteria.

56. (amended) A method for reducing the concentration of a pesticide or organic pollutant in an aqueous solution or environmental site, comprising (a) selecting an aqueous solution or an environmental site containing said pesticide or pollutant; and (b) contacting said solution or site with a composition comprising zero-valent iron and a culture of one or more hydrogenotrophic bacteria, or contacting said solution or site with a device [in accordance with any one of claims 1 to 18] comprising a composition comprising zero-valent iron and a culture of one or more hydrogenotrophic bacteria.

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